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# The Irrigation System in the Region of Jembrana

## I

### *The Irrigation Association*

An irrigation association, or *subak*, comprises a larger or smaller number of owners or holders of irrigable fields together forming one consolidated complex, and has the aim of promoting common irrigation interests. As a rule the *sawahs* lying within the territory of one *subak* obtain their irrigation water from one and the same main conduit, for which reason the *subak* is legally defined as a "group of *sawahs* which, being watered from the same conduit or the same branch of a conduit, forms an irrigation association"[1] – a description which a number of authors have accepted. There are various kinds of exceptions to this definition. One example is the *subak* of Kaliakah, whose westerly *sawahs* are dependent on the Daya River (in Negara) for their irrigation water, while the rest of the fields are irrigated from the Kaliakah. The two parts going to make up this *subak* actually have no common irrigation interests, but since each of them was too insignificant to function effectively by itself they united into one irrigation association so that their board could be given a broader task and mutual assistance for large-scale activities could be organized more satisfactorily. It is, incidentally, the custom that only those members of this *subak* who derive advantage from a measure have to bear the financial consequences for it. Several other cases approaching the circumstances in the *subak* of Kaliakah are mentioned in an unpublished monograph on landrent in Jembrana dating from 1932. In any number of cases *subaks* have common interests, which manifest themselves above all in collective ownership of weirs and conduits and in joint worship of temples.

[p.269]

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312 241 474 Expenses are usually apportioned according to the number of *sawah*-holders, or, as the term goes, every *pĕngalapan* pays the same amount. By *pĕngalapan* is meant the water inlet through which one *kĕsit* of *sawahs* is irrigated from the conduit. A *kĕsit* consists of a series of *sawah* plots lying one behind the other and belonging to the same person. If behind a *kĕsit* there is another belonging to someone else, the latter never receives the excess irrigation water from the *kĕsit* lying upstream, as is the case for the *sawahs* of one *kĕsit;* instead, a special branch conduit is constructed from the main conduit along the *sawah* dikes of the upstream *kĕsit* to the other *kĕsit*. The holders of the *sawah* plots beside this conduit, for whom the water is not intended, may not appropriate any water from it without running the risk of being punished by the *subak* for water theft.

The *subak* functionaries take care that the water inlet for each *kĕsit* admits exactly the right amount of water needed for proper irrigation. In this the *sawah*-holders give their full cooperation, aware that it is in their own interests, since an excessive amount of water is harmful to the crops. It is for this reason that farmers are to be seen in the *sawahs* during heavy rains, to prevent too much water from coming into the *kĕsit*. Mutual assistance in the form of exchanging labour is frequent between *subaks* or groups of *subaks*, often under the auspices of the regional and lower agricultural officials, the *sĕdahan agung* and *sĕdahan*.

2

### *The Subak Board*

The head of the *subak* association is the *klihan subak*, who is appointed by the *sĕdahan* and the *sĕdahan agung*, though the feelings of the members of the *subak* are definitely taken into account. The *klihan* selects certain helpers, again more or less in accord with the preferences of the *subak*. They consist of an assistant *klihan*, and several *jurus arah*, or criers, and assistant *jurus arah*. The number of criers depends on the size of the *subak*, the lay of the land, the number of *subak* members, and the extent to which their dwellings

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are scattered. A crier's jurisdiction is called *arahan*. A general term for a *subak* functionary is *pĕnyarikan subak*, that is to say a person who makes notes. Members of the *subak* board are exempted from *subak* services, but not from head levies. An ex-functionary is sometimes given exemption from services for one *kĕsit*, but only for a specified time, the length of the exemption depending on the degree to which he has been of aid to the *subak*.

In connection with religious life as it finds expression in the *subak* organization, reference must also be made to the *pĕmangkus*, the temple officiants. The normal course of affairs is that in each *subak* sanctuary care for the maintenance of the temple is given to a *pĕmangku* assisted by one or more helpers (depending on the extent of his duties) who are chosen from among the members of the *subak* and, like their superior, are exempted from *subak* services. As in the case of the other *subak* functionaries, the exemption does not extend to the levies in money or in kind. The *pĕmangku*, too, if he is a *sawah*-holder, has to pay his share of such levies. The *pĕmangku* has charge of the presenting of offerings, including the special offerings on *rĕrainan*.[1] He is qualified to ask the deity for holy water and to lead the offering ceremonial.

The *pĕmangkus* of the temples of Tilarnĕgari, Bakungan, Maospait, and Pĕgubugan receive a share of the harvest from each *subak* member participating in the religious ceremonies as a compensation for their services. This compensation, called *pĕlaba*, consists of one handful of unthreshed rice per *kĕsit*. The paddy set aside for religious purposes in this way is called *pantun sari n taun*, the spiritual share of the year's yield. Originally the *sari n taun* was converted into money and the proceeds used for the purification ritual performed whenever crops were molested by mice, worms, locusts, or other vermin. It also served to cover the costs of bringing in holy water and of *nĕduh*,[2] but when the government defrayal to the *pĕmangkus* was abolished in 1922, the *sari n taun* was made a substitute for it. As a reward for their services the *pĕmangkus* also have a right to the doits placed in the offerings.

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## 3

### *Subak Services and Levies*

The *subak* obligations are divided into two groups, *pĕkaryan* and *pĕnyubaktian*, depending on whether they pertain to activities of a profane nature or to religious matters. Included in the *pĕkaryan* are services in connection with the construction, maintenance, and repair of weirs, water tunnels, open conduits, distribution blocks,[4] and *subak* roads. The *pĕnyubaktian* obligations have to do with worship in the various *subak* temples, the holding of offering festivals, and purification ceremonies.

Just as in the *banjar* the fiscal unit is the *paon*, the hearth, in the *subak* it is the *pĕngalapan*, the water inlet of a *kĕsit*. For each *kĕsit* the same amount of services needs to be rendered to the *subak* and the same share in the head levy needs to be paid. However, when a *kĕsit* is worked by more than one person, for example by the owner and his sharecroppers or by several heirs together, just as many persons should present themselves for *subak* services as are working on the *kĕsit*, since in this case the actual concept of a *kĕsit* as a complex of *sawah* plots held by one person has been broken with. Consequently that rule does not apply when the owner or holder of a *kĕsit* is helped by another person for wages or without compensation of any sort. The head levies, on the other hand, are on the ground, and are levied per *kĕsit*, regardless of what its area may be or how many people are working it.

It is not permitted for someone to perform *subak* services for more than one *kĕsit;* for violation of this rule a fine of twenty-five hundred doits is charged. A person who has a second *kĕsit* within the same crier's jurisdiction must perform *subak* services for one *kĕsit*, while for the other a relatively small money reimbursement called *ngampĕl* is due for the irrigation water. If the *kĕsits* are in two different crier's jurisdictions, a larger reimbursement known as *pĕnumbas toya* is required. The higher rate also applies when someone has more than two *kĕsits:* for the third and following *kĕsits pĕnumbas toya* always has to be paid. For both the cheaper

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and the higher rate of commutation for water there are maximums: for *ngampĕl* an amount equal to half of the landrent is prescribed, and for *pĕnumbas toya* twenty guilders. If someone takes on a sharecropper in mid-season this is called 'evading services'.[1] The fine is five thousand doits, plus compensation for the *subak* services not performed. Subject to the approval of the *klihan subak* or the crier, a substitute can be appointed for *subak* services, the *kĕsit*-holder remaining responsible. Especially officials and *pĕdandas* make use of this possibility. The *sawah*-holder is also responsible for violations of regulations by a sharecropper; on the other hand a sharecropper who has already performed *subak* services can no longer be discharged. *Subak* services cannot be transferred to a minor.

According to popular belief the Dutch authorities also have the right to claim services from members of the *subak*. In the present day this principle is no longer applied except in celebrating national holidays and during visits of the governor general. In cooperation with the *desa* the *subaks* help to put up decorations, erect festival structures, and spray the roads. *Subak* members must also turn out to form guards of honour and can be required to provide levies in the form of materials and money to be used to defray travelling expenses for persons who have to pass the night away from home while performing services. Obligations to the authorities are grouped together under the term *karya pĕngĕdalĕm*.

## 4

## *Religious Obligations*

### THE SUBAK SANCTUARIES

There are three categories of *subak* sanctuaries: the *pura pĕnyungsungan subak*, the *pura ulun charik*, and the *chatu*.

Under the term *pura pĕnyungsungan subak* fall the sanctuaries which were originally *desa* temples that one or more *subaks* helped to worship, after which in the course of time all the expenses connected with the temple services and offering ceremonials have gradually fallen to the *subak* or *subaks*, though others may con-

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tinue to participate in its services; either as a *desa* or as individuals. Examples of *puras* of this sort are the temples of Tilarnĕgari, Bakungan, Pĕgubugan, Maospait, and Pankung-panĕs. In Pura Tilarnĕgari only a small number of persons take part in services outside the *subak* context; Pura Maospait, on the other hand, enjoys the interest of the whole region, or at least of the heartland of Jĕmbrana, whose eastern limit is Yeh Ĕmbang. Participation in services by individuals may be the result of a pronouncement by a *balian*, or may be based on tradition.

The *puras ulun charik* were founded by one or more *subaks*, and, apart from a few exceptions which do not detract from the principle, are exclusively their object of worship. The *ulun charik* is frequently at the head end (*ulu*) of the ricefields (*charik*), and serves as a seat for Batara Sri, the rice goddess. Except in the case of the *subaks* Yeh Anakan and Tĕgaljati, each of which has both a *pura ulun charik* and a *pura pĕnyungsungan subak*, all the *puras ulun charik* are worshipped by more than one *subak*. There are no temples serving for all the *subaks* of the region or even for those of a whole district, though of course at certain times everyone joins together with the rest of Bali in addressing himself to Pura Bĕsakih, and at such times holy water for the *subaks* of the whole region is requested in a few prominent temples. The initiative for such a ceremony emanates from the *pĕruman kĕrtanĕgara*, the council of ruling princes, while implementation within the region is carried out by the head of the region *via* the chief agricultural official.

*Chatu* is the term for the offering columns or altars erected in every *subak* nearby waterworks of great importance for the water supply, in honour of the patron deity to whom the works are dedicated. Particularly beside the weir they are seldom lacking. Many a *chatu* has developed into a temple, as a result either of an increase in the number of *subak* members or of the fact that a certain weir has become important for more than one *subak*. In that case the number of altars is frequently enlarged, but the intrinsic difference in construction between a *chatu* and a *pura* is that only the latter is surrounded by a wall or a paling. In case a

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474 312 778 number of *subaks* worship at one *pura ulun charik* in common, each of the separate *subaks* also has a branch temple in the form of a *chatu* which serves as a temporary residence for the deity of the *ulun charik* when it is summoned to appear there on appropriate occasions.

### TIMES OF WORSHIP

782 312 474 For all the temples and other places of worship there are certain times when religious ceremonies are held, either periodically or as occasion demands. The periodical ceremonies are divided into *ngĕrainin* and *ngĕbĕkin* or *ngusaba*.

*Ngĕrainin* consists of making a flower offering in the *puras ulun charik* and *pĕnyungsungan subak;* it takes place on certain favourable days (*rĕrainan*) such as full moon, new moon, Wednesday-Klion, Anggara Kasih (Tuesday-Klion), and the like, and is performed by the *pĕmangku* without the members of the *subak* being present. No *ngĕrainin* takes place at the *chatus*, which, since they are not *puras*, do not have *pĕmangkus*.

241 782 The harvest festival is celebrated in the last stage of the ripening of the rice, in alternate years as *ngĕbĕkin* and as *ngusaba*. New moon is considered a favourable time for *ngĕbĕkin*, while *ngusaba* takes place at full moon. The former ceremony has the character of an offering to the demons; the latter, primarily a festival of thanksgiving to the deity, is more elaborate than *ngĕbĕkin* and is often accompanied by the placing of festive poles of bamboo (*penjor*) at each *kĕsit*. The *puras pĕnyungsungan subak* follow a pattern similar to that of the *puras ulun charik*. There, too, *ngĕbĕkin* and *ngusaba* alternate every other year or every two hundred ten days, depending on whether the Hindu-Balinese or the Javanese-Balinese calendar is followed, with the festival being held on the anniversary (*odalan*) of the temple. *Ngĕbĕkin* is the 'little' festival; the *ngusaba* of the *pura pĕnyungsungan subak* is also called *odalan*. The weir *puras* usually have their *odalan* on Anggara Kasih (Tuesday-Klion) in the week of Kurantil; if there is not yet a *pura*, but only a *chatu*, then the ceremony taking place on this date is called *ngĕjot*. (*Pĕjotan* is also brought to the *chatus* whenever the deity

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OF7 Balinese OF7



241 782 to the new crop, but buys or borrows enough to meet his needs until after the *mantĕnin*.

## 5

### *Subak Regulations*

312 474 *Subak* regulations are divided into *sima* and *awig-awig*, depending on whether they are considered as having emanated from the former royal administration or were drawn up within the *subak* itself. The *awig-awig* consist of customary law handed down by word of mouth, and have been recorded only sporadically, under the influence of agricultural officials and local headmen. Copies of the *sima*, on the other hand, are held by the regional and lower agricultural officials and now and then by a literate *klihan subak*. Used as a *sima* is a work attributed to the ruler of Buleleng which begins with the following words:

> Regulation of Gusti Gĕde Ngurah, who resides and rules at Buleleng. This edict applies to all subjects to the east of Ponjok Batu as far as Pĕtĕmon and the adjoining mountainland, and applies alike to Brahmins, *ksatriyas*, *wesyas*, and *sudras*, to all who must pay taxes on irrigable fields and levies on coconut groves and dry fields as these are levied by the agricultural officials in the aforementioned territory.

The text now in circulation in Jĕmbrana was imported from Buleleng, and gives the impression of being a codification from various sources, as is indicated by the repetition in the treatment of one and the same subject. In one of the last articles there is a dubious dating "Anggara-Klion, Wara Tambir, i Çāka 1805" (thus 1883 of the Christian era). The codex prescribes regulations on the payment of taxes, selling and pawning, pasturing cattle, and taking in stray cattle. Fines incurred for the stealing of water, seedlings, or rice and for destroying plantings or waterworks are also listed. At the same time mention is made of the measures which should be taken in case carelessness in burning off a field leads to damages for third parties, and the methods to be used in appointing *subak* functionaries and regulating local irrigation.

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An important point is that the *sima* places a sanction on violation of the *awig-awig*. The latter regulations, which have arisen in the bosom of the *subak* itself, have to do with *subak* services and levies; they list the penalties for disregarding the generally held views on the periodicity of agricultural activities, the maintenance of which is of importance for proper irrigation rotation and effective combating of crop diseases and pestilences. Violations of *subak* regulations are reported to the *klihan subak*, who considers them and pronounces penalties at the next *subak* meeting. In the great majority of cases the disciplinary measures of the *subak* appear to be efficient enough, and the agricultural officials need be called upon to intervene only rarely. In extreme cases a dispute may be placed before the Court of Kĕrta.

The violations that occur most frequently, and the fines placed on them, are as follows. For coming to a work project late there is a fine of fifty doits; if one does not appear at all, without reason and without excusing oneself beforehand, the maximum fine is twenty-five hundred doits. When someone comes to work without the materials he is required to provide, he is penalized with a fine of two hundred fifty doits; if what he has brought is found to be insufficient or of unsatisfactory quality the fine is a hundred fifty. There is a fine of twenty-five hundred doits for stealing water.

When the period set for the payment of a fine is exceeded, the fine is doubled, and in case someone repeatedly avoids paying a fine that he has incurred, a special mark, or *sawen*, is placed on his *sawah*. In Jĕmbrana the *sawen* serves only as a confirmation that official notice has been given for payment to be made within ten days, and not, as is elsewhere the case, as an indication that the *sawah*-holder has no right to work in the fields or receive irrigation water before his debt has been redeemed. The *sawen* is not removed until a supplementary fine of two hundred fifty doits has been paid. If even the placing of a *sawen* does not lead to the desired result, resort is taken to the *gade galur* procedure, in which the right to work the *sawah* in question is sold for one harvest to a third party for the amount of the fine due. The *sawah* may then be redeemed only after a full crop year; if it is not then redeemed,

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312 a new period of a year is set automatically. The *gade galur* is also
474 frequently applied in cases of landrent arrears.
627 Systematic refusal to follow the orders of the *subak* board is punished very severely. The minimum fine for this violation is twenty guilders, to be paid before the harvest period. If a delinquent perseveres in his obstinacy, his crop can be confiscated, and he can be ejected from the *subak* association and placed on the black list in all *subaks*. No such drastic measure has ever proved necessary within human memory, however.

[695] Noteworthy is the custom that if someone is accused of having violated a regulation (for example of stealing water) and there is not sufficient evidence to prove the violation, the accused is required to take the oath of purification in one of the *subak* temples. This oath is also used when a violation is discovered without there being any indication as to who is guilty. The *sawah*-holders in the vicinity of the scene of the transgression are given a certain time to discover the guilty person, and if he remains unknown are also required to take such an oath.

## 6

## *Subak Funds*

312 The funds of the subak are administered by the *klihan subak*, with
474 the agricultural official concerned having a check on their administration. The funds coming into the treasury consist of fines, water-service commutation fees, entrance fees, and incidental levies.

An entrance fee is due upon the foundation of new *subaks* or the extension of the area of a *subak* by converting dry fields into irrigable land, and amounts to a maximum of ten rixdollars per hectare, or some four rixdollars per acre. The funds belonging to the *subak* are used for building and maintaining irrigation works and for religious purposes. There is also a widespread custom to divide the proceeds from fines and commutation fees among members of the *subak* once a year.

Significant sums are sometimes brought together by means of levies. The monograph on landrent referred to above mentions

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the case of the *subak* of Yeh Ēmbang, where during the periods 312
1921–1928 and 1930–1931 the sums of *f* 28,335 and *f* 20,450 in 474
cash were spent on tunnel construction by no more than 134 persons, without counting the costs of the food and materials which according to custom had to be given to the tunnel-diggers during the work. Total expenditures for tunnel construction amounted to sixty thousand guilders; the *subak* area was two hundred thirty hectares, or some five hundred seventy-five acres.

7

*Subak Meetings*

The *subak* meets together regularly, on a set day of the Javanese-Balinese thirty-five-day month. Aside from these meetings there are others as the occasion demands. The latter sort of meeting is held, for example, during a work project, when the workers come together after the day's task has been completed in order to receive further instructions and to take decisions. The periodical meetings are held in the *pura ulun charik* or one of the other sanctuaries of the *subak*. At them the organization of *subak* services and work projects to be undertaken are discussed; *subak* regulations are occasionally revised or new regulations are decided upon; planting dates and the proper times for coming religious ceremonies are announced; transgressors are penalized and orders of the authorities are made known. In special cases the monthly meetings may be attended by the regional agricultural official or other authorities.

8

*Regulations Regarding Operation of the Sawahs*

When the time has come to make a start with setting out seed- 312
lings, one of the members of the *subak* board is appointed as the 474
pacemaker, the *pĕngĕwiwit*, that is to say 'he who begins'. *Subaks* 627
under the guidance of the same *klihan* or located near to each other frequently appoint a joint pacemaker. The pacemaker has

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OF7 Balinese OF7



312 a right to assistance from the other members of the *subak*. Only
474 one *kĕsit* is planted, however, and before the work of planting it
627 has been finished and the ceremonial regulations have been met, nothing may be planted in the other *kĕsits*, not even in others belonging to the pacemaker. The transplanting is accompanied by certain ceremonials, the costs of which are borne by the members of the *subak*.

The next day, Nyĕpi, it is not permitted to work in the *sawahs*. Violation of the prohibition is punished with a maximum of twenty-five hundred doits. Then follows a period of twenty days within which every *subak* member must complete his planting. There is a fine of five thousand doits for planting before or after the official period, and the right to possible exemption from landrent in case of a bad crop is cancelled. Persons who have aided the transgressor in violating the regulation are punished with a fine of twenty-five hundred doits. The fixing of a period within which planting has to be done is of importance with an eye to proper water control, efficient division of labour, and measures in connection with combating plant diseases and pestilences. The appointment of a pacemaker has its utility from a disciplinary point of view and makes the date when planting can be begun generally known, while the association with traditional magical, religious convictions evinced by the offering ceremonial and Nyĕpi Day is also of value in this respect.

If for no good reason a *sawah* is not farmed, a fine of twenty-five hundred doits is due, while the landrent has to be paid in full. In case the transgressor is a sharecropper he also has to reimburse the landholder for the income lost. The *subak* does not like to see fields left unplanted: that serves not only to make it more vulnerable economically, but also undermines discipline, and *sawah* plots overgrown with weeds provide a welcome home for all kinds of vermin. There are no religious duties or prohibitions with a restricting effect on the course of agricultural affairs. Offerings and temple ceremonials do not demand an excessive amount of time and are frequently charged to groups of persons in rotation. The people have found a means of adjusting expenditures for religious

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purposes to the circumstances of the times in the system of celebrating festivals according to various levels of expense: *nista*, *madya*, and *utama*, that is to say poor, average, and good.

9

*Harvesting and Planting Associations and the System of Mutual Assistance*

The forms within which agricultural labour is made collectively available are legion. Forms in which groups of persons seek work for wages are to be found side by side with forms with the exclusive purpose of lending mutual assistance. Sometimes there is a formal association (*sĕka*) with officers, oral regulations, and a system of fines, acting in concert in its relations with third parties; sometimes the relationship is only one of an incidental nature. A few *sĕkas* which work for pay and deserve mention are the *sĕka mĕmula*, or association for transplanting seedlings; the *sĕka manyi*, or harvest association; and the *sĕka nĕpuk*, for binding paddy into sheaves.

The pulling out (*ngabut*) and transplanting (*mĕmula*) of the seedlings is done by men. The cutting (*manyi*) is done by women, but the binding of paddy into sheaves (*nĕpuk*), each consisting of a set number of handfuls, is again work for men, since manipulating the heavy weights and cutting off the excess rice straw requires a great deal of physical strength. The wages consist either of money or of food and money; for harvesting there is also payment in kind: for every twelve handfuls of rice one is the wage for cutting. At the moment of writing the customary money wage is twenty-five cents per day; when vegetables made into a sauce are provided for the rice which the members of the *sĕka* bring with them, the wage is twenty cents a day.

Sometimes such an association is formed primarily to lend mutual assistance to its members, and works for wages only for third parties. It sometimes also happens that a person without land of his own has joined a *sĕka*, in which case when it is his turn to have the labour of the association at his disposal he transfers the right to someone else for a reimbursement in money: this custom is to be found in the district of Jĕmbrana.

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241 476 Mutual assistance is customary in working the soil, sowing the nursery beds, transplanting the seedlings, weeding, cutting the rice, binding it into sheaves, and taking the harvest home. It is usual that food is supplied during the period that mutual assistance is given. Sometimes the same group of persons is involved in the *sĕlisihan*, the mutual-assistance group, for the various tasks, but usually not, since the number of persons necessary is not the same for each sort of work. In the district of Nĕgara all agricultural work is done by *sĕlisihans*.

Frequently there is a complicated system such as is followed for the harvest associations of women, where dozens of women are sometimes united in one *sĕlisihan* working according to a carefully drafted plan. A quite accurate estimate is made of how many cutters will be needed in the course of one single day to cut the rice of a member of the *sĕlisihan*. In this way it is possible to divide the cutters over the various *sawahs* each day in an efficient way. It is figured that a workday ends about one hour before sunset; if the cutters on a certain *sawah* are through with their work much earlier, it is a sign that the estimate of the *sĕlisihan* was too high. The *sawah*-owner then receives a certain compensation in money for the excess food he has given. It is quite just that this indemnity should be given, the more so since the wife of the landholder has to give the same number of days of service as she has profited from.

When someone's crop is not completely harvested in one day he must hire a *sĕka* for the rest. The *sĕlisihan* is completely separate from the *subak* association, which serves only irrigation interests. Often the community unit, the *banjar*, serves as a basis for a *sĕlisihan;* in other cases relatives and acquaintances join together.

## 10

### *The Formation of New Subaks*

467 312 474 Several new *subaks* have been created in recent times in the eastern part of the region of Jĕmbrana, where a beginning in clearing the forests was made only after the Dutch expeditions against southern Bali in 1906–1908. The landrent monograph referred

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OF7 Balinese OF7



to above reports that on 13 April, 1922, several members of the *desa* of Pĕngyangan concluded an agreement with a tunnel-diggers' association. The construction of tunnels stagnated owing to difficulties in the lay of the land, and had not yet been completed at the end of 1931. At present the *subak* of Pĕngyangan has an area of more than forty hectares, or over a hundred acres, with exactly fifty landowners from whom a total of *f* 530 in landrent is due. Reportedly the following procedure was used in forming this *subak*. From the very beginning the *sĕdahan agung* and the *sĕdahan* concerned were involved in the matter, and they were constantly kept informed on the amount of yardage measured out by the tunnel-diggers. After the tunnel-diggers' association had reported which terrains might reasonably be expected to be irrigable, the owners of the gardens indicated joined together to form a *subak*.

Even more recent is the formation of the Sĕrangsang River *subak* (in the territory of the *desa* of Gumbrih), which is now twelve hectares or some thirty acres in size and numbers twenty-six landowners, while the landrent due amounts to *f* 110. The first *sawahs* date from around 1914; at that time seventeen persons joined together in a *subak* on the initiative of the village elder, who was later recognized by the Dutch authorities as *klihan*. Irrigation water was obtained by damming off the Sĕrangsang River, a ravine which is completely dry during the eastern monsoon. The water is carried to the *sawahs* through an open conduit *via* the coconut groves of Pulukan Plantation. Some difficulties are created by an irregularity in the lay of the land, which has made it necessary to construct an aqueduct. The conduit follows the crown of a dike, but the dike has not proved able to stand up against the pressure of the water.

## II

### *Moslem Subak Members*

Though there are no *subaks* in Jĕmbrana consisting entirely of Moslems, there are associations here and there where their proportion is fairly high. The *subak* of Yeh Anakan, in the vicinity of

1:Franken et al M, G-5 (ca. 1913-1948)1960
OF7 Balinese OF7



Moslem settlement of Banyubiru, has the largest proportion of Moslem members, sixty per cent. of the total. The board of the *subak* contains the following functionaries: a *klihan subak* (Bali Islam), an assistant *klihan* (Bali Hindu), three criers (Bali Hindu), and three assistant criers (Bali Islam). It is noteworthy that the number of Bali-Hindu members of the *subak* board is relatively large, and that the important functions of crier are all filled by Bali Hindus. According to a statement of the *klihan subak* this must be attributed to the circumstance that the maintenance of the *subak* sanctuaries rests completely on the Bali-Hindu membership contingent. The services and levies for secular ends are the same for both categories of *subak* members. Religious obligations are fulfilled by each group according to the requirements of its faith, though in case a Bali Hindu has a Moslem sharecropper a half share is expected to be provided for the Balinese ritual.

Before any important task is undertaken and also after the harvest (at Pulukan before the cutting is begun) the Moslems hold a sacred repast, a *sĕlamatan sĕdĕkahan*, with rice, *kĕtipat* (rice steamed in coconut leaves), rice porridge, and pastry, at the work site, and either a mosque official, a religious teacher, or someone else who is familiar with the ritual recites a special prayer. A ritual prayer for a good crop is also sometimes held in the mosque. In case of a crop disease the *tolak balak* ceremony, literally 'the averting of misfortune', is held. Then every member takes a plaited bamboo mat containing *kĕtipat* and pastry to the *sawah*, where a special prayer is recited over these gifts. In times of sickness and disaster it is, in fact, also the custom to repeat this ritual in the open fields near the *desa*, and the *tolak balak* is performed for the benefit of dry-field farming as well. This Bali-Islam ceremony has points of correspondence with the Bali-Hindu festival of purification.

There is also a ritual prayer for rain in periods of prolonged drought. This *sĕmbahyangan istika* (recited in the Javanese way) takes place in the mosque after the Friday service and not in the open air, though on the same occasion Moslem members of the *subak* hold a *sĕlamatan sĕdĕkahan* by the weir. In the mosque owners

1:Franken et al M, G-5 (ca. 1913-1958) 1960
OF7 Balinese OF7



of dry fields and gardens take part in the ceremony along with the *sawah*-holders. The *sĕmbahyangan istika* is repeated every Friday until the rains come. It has happened several times that it was held at the request of the regional agricultural official to the *pĕnghulu*. (It should be mentioned that in earlier years the Pulukan agricultural official was a Moslem.) As a rule relations between the Bali-Hindu and Bali-Moslem members of the *subaks* leave nothing to be desired.

12

*Irrigation and Landrent Levies*

Under the agricultural official, or *sĕdahan agung*, for the region of Jĕmbrana, who is also the acting head of the regional landrent office at Nĕgara and assistant collector of revenues, are four *sĕdahans*, or lower officials, for the *sawahs* and two for the dry fields. The first category of officials are called *sĕdahan tĕmuku*, a designation which has to do with one of their chief tasks, supervising the distribution of irrigation water by means of distribution blocks (*tĕmukus*), while their fellow-officials for the dry fields (*tĕgalan*) and gardens (*abian*) are called *sĕdahan abian-tĕgal* after the nature of the lands under their jurisdiction. The territory over which a *sĕdahan* is placed, the *pĕsĕdahan*, is divided in *desas* in the case of dry lands, but the wet ricefields are organized in *subaks*.

The *sĕdahan agung* and the *sĕdahans tĕmuku* are concerned not only with the collection of taxes, but also with the *subak* system. When large-scale projects are to be taken up, or when there has been serious damage to the irrigation works of one or more *subaks*, the *sĕdahan agung* and his *sĕdahans* regulate the way in which the various *subaks* are to cooperate and to what extent other *subaks* are to lend their assistance. The *sĕdahan agung* also gives advice on irrigation problems and functions as a link between the *subak*, the Dutch authorities, and the relevant technical services. He moreover makes contact with the *desa* administrations in order to arrive at an effective arrangement for setting dates when statute labour and *desa* and *subak* services are to be rendered.

1:Franken et al M, G-5 (ca. 1913-1948)1960
OF7 Balinese OF7



312 474 624 To mention a few examples, in September, 1935, the extensive damage to the tunnel system of the *subak* of Yeh Buah wrought by a flash-flood was repaired with the *subaks*, the central authorities, and the irrigation service cooperating, while in December of the same year a start was made in straightening the lower reaches of the Pĕrgung River. In these projects the activity of dozens of *subaks* was organized; the help of the irrigation service was restricted to giving advice and surveying the land.

In some cases the *sĕdahan agung* sees to a certain amount of coordination in religious matters, while the adjudication of *subak* violations according to *adat* law also falls within his competence. In the latter the *sĕdahan agung* has an appellate function; he has the power to apply sanctions recognized by *adat*, such as fines and the withholding of irrigation water, but he cannot impose imprisonment.[7] The *sĕdahans tĕmuku* supervise the use and accountability of *subak* funds. The agricultural officials also have some influence on arrangements for irrigation rotation between *subaks*. In the westerly irrigation territories such arrangements are not necessary, since the irrigation-water supply is sufficient; in the *pĕsĕdahan* of Jĕmbrana and further to the east there is a system of irrigation rotation regulating which month a specific *subak* has disposal over water. The arrangement is constant: there are no periodical changes with the intention of creating conditions which are in the long run the same for everyone. It is the rule, however, that the *subaks* lying farthest from the weir receive water first. Also steps are taken to counteract consequences which might be unfavourable for some *subaks* as a result of a certain seasonal arrangement, in keeping with the principle that everyone has to contribute a like amount in the costs of irrigation. In each of the two *pĕsĕdahans* Nĕgara and Jĕmbrana there is only one *subak* depending on tunnel irrigation; in the *pĕsĕdahan* Mĕndoyo there are underground conduits in the irrigation system of four *subaks*. In Jagaraga-Pulukan, however, there are ten *subaks* with tunnels. As regards dry-field farming the *sĕdahans* and the *sĕdahan agung* have a function in the dissemination of agricultural information.

2: Covarrubias R-5 (1930-1933) 1938
OF7 Bali OF7



622 approval, but his office may be hereditary if the son of a popular chief is believed to possess his father's virtues. Should he be found to be undesirable, he is politely asked to resign and a new *kliang* is elected. A good village chief is a popular and influential man although he may be poor and simple. Once elected and after the choice has been sanctioned by the gods, he cannot decline to hold office, except under severe penalty. Even then his services are not rewarded, and the advantages he enjoys by his position are insignificant; he receives a slightly larger share of land, perhaps a double share of the food distributed from offerings, and he is free of certain duties. He does not receive any salary despite the burden of his obligations and responsibilities; he has to administer the society, preside over the meetings, manage and organize all of the *desa* festivals. He shares the executive
[624] duties of the *desa* with the *penyarikan*, a lesser official (who is not, however, under his authority), a scribe and a number of messengers, none of whom are rewarded.

178 Under the rule of the princes the system was greatly under-
623 mined, especially where the villages grew too large to be effectively managed by such a simple patriarchal organization. In the conquered territories the lands were gradually taken away from the *desa* and its authority was weakened until the function of the *desa* is now reduced to the upkeep of the village institutions, the celebration of village festivals, and religious ceremonies. The *desa* remains, however, the bulwark of the *adat* law, the net of traditional regulations owned by each village, in which all possible cases are carefully worked out in the most remarkable simple logic.

### THE BANDJAR

621 As the *desa* Government lost control over the social and eco-
474 nomic organization and as the village grew, simultaneously with
575 the power of the local prince, it became divided into smaller communities within the *desa*, quarters or wards, the *bandjars*: cooperative societies of people bound to assist each other in

2: Covarrubias R-5 (1930-1933) 1938
OF7 Bali OF7



marriages, home festivals, and especially during the expensive cremations. The various *bandjars* of a village take part in the *desa* activities, assisting in the repair and improvement of the temples and contributing to the village festivals. The *bandjars* have recaptured a great deal of the administrative power that the *desa* lost to the princes, although they are subject to the present-day Government (that of the Dutch through the princes), but they remain socially independent within their territory, with their boundaries generally established by the main road on one side, the lesser streets on another, and the rivers and ravines on the outskirts of the village. They have often ricefields worked communally to provide for their banquets and to enlarge their income, which is mainly derived from fines and entrance fees, kept in a communal bank that lends money to needy members. Everyone enjoys absolute equality and all are compelled to help one another with labour and materials, often assisting a member to build his house, to prepare his son's wedding, or to cremate a relative.

Membership is compulsory; after marriage a man receives a summons to join the *bandjar*. He is given ample time, but if after the third summons he has not joined, it is considered that he deliberately refuses to comply and he is declared morally "dead," is denied even the right to be buried in the cemetery, and is boycotted from all communal activity.

Like the *desa*, the *bandjar* is ruled by a *kliang bandjar*, elected by the members, with the choice approved by the gods through consultations with mediums. The *kliang* of the *bandjar* is not remunerated for his difficult work, except for the honour attached to his position and certain insignificant concessions like extra rice at banquets, a small percentage of the fines collected, and presents from members who receive special services, like part of the reward offered for lost cattle, for surveys, for assistance in marriages, and so forth. He cannot decline to serve and can be deposed if found unsatisfactory.

The *bandjar* has considerable property: It owns its meeting-

2: Covarrubias R-5 (1930-1933) 1938
OF7 Bali OF7



474 575 [345] [423] halls, the *balé bandjar*, a club-house without special religious significance, with its drum-tower to call to meetings. The *balé bandjar* is provided with a kitchen and with all sorts of cooking-implements: pots and pans, chopping-blocks, knives, etc., which [422] are lent to members who require them. The *bandjars* also own the village orchestras and the dancing-properties — costumes, masks, and head-dresses — which are stored in a *gedong*, a brick building where they are safe from theft or fire.

517 575 The men spend most of their spare time in the *balé bandjar*, gossiping, trying out their fighting cocks, watching a rehearsal of a play or of the orchestra, or just sitting. If the *bandjar* is prosperous, it takes great pride in giving elaborate banquets with music and entertainment. These may happen at the great national festivals, at the anniversary of their little *bandjar* temple, or at the inauguration of a new roof, a new orchestra or dancing-group. But also the private festivals of the members become *bandjar* affairs, and *bandjars* like Belaluan, where we lived, celebrated 574 252 462 575 [202] feasts with staggering frequency. Only the men may prepare banquet food, and often we were awakened in the middle of the night by the *kulkuls* calling them to kill the turtles and the pigs for a feast. Banquet food takes long to prepare and the animals have to be slaughtered in the middle of the night to ensure the freshness of the meat and of the sauces in the difficult climate of Bali. After two in the morning before a feast everybody was busy; the men chopping meat, cooking, scraping coconuts, building sheds and altars; the women carrying water, making offerings, cutting out ornaments of palm-leaf or wrapping individual packages of *sirih* and betel for the guests.

574 517 By noon the banquet took place, the men sitting in the *balé bandjar* in two long rows facing each other with their individual mountains of rice, pig, and turtle meats served in large squares of banana leaf, drinking *tuak* and making loud jokes. When the [515] [264] meal was over, *kendis* of water were passed so that the guests could wash their hands and mouths. The rest of the day and 517

2: Covarrubias R-5 (1930-1933) 1938
OF7 Bali OF7



or *bandjar* to act as mediators for a friendly settlement. Disputes concerning ricefields or irrigation water are settled by the council of a special agricultural society, the *subak*. Should it become necessary to adopt a strong decision, the village council votes for a verdict.

In any case the village heads leave no stone unturned for a quick settlement of the affair to prevent its becoming involved in a legal court procedure, which is always distasteful to them, and it is only as a last resort, when all other resources have failed and passions are very much aroused, that the Balinese will appeal to the official high tribunal, the *kerta*.

The repugnance of the people against having to appeal to the *kerta* is only part of the Balinese policy of keeping the princes from interfering too much in their affairs. The *kertas* are the courts of the princes and they are generally composed of three Brahmanic priests who act as judges. They are assisted by a number of *kantjas*, "lawyers," and a scribe.

Trials take place in a special shed, built over a high stone or brick platform. The Kerta Gosa, the court house of Klungkung, one of the inevitable sights of Bali, is already famous because of the lurid paintings that cover the entire ceiling, depicting the punishments that await a law-breaker in hell. The court house is beautifully decorated; two stone serpents flank the stairs that lead to the platform where the judges sit on great gilt chairs.

A trial must be conducted with the greatest dignity and restraint. There are rules for the language employed, the behaviour of the participants, and the payment of trial expenses. It is interesting that court procedure resembles that of cockfights in its rules and terminology. On the appointed day the plaintiff and the defendant must appear properly dressed, with their witnesses, and their cases and declarations carefully written down. An absentee or one whose case is badly stated loses his suit. The *kantjas* read the statements of each party and then those of the witnesses in their successive order. No one is allowed to speak unless he is addressed. Talking excessively or too loud, quarrel-

2: Covarrubias R-5 (1930-1933) 1938
OF7 Bali OF7



243 are sprinkled with the dainty blades of the newly planted rice in an all-over pattern of chartreuse on a ground of brown ooze. This thickens eventually into a tender yellow-green carpet which turns to a rich gold ochre as the grain ripens, finally leaving only dry, cracked mud after the harvest. The landscape is continually changing, and as the crop begins or ends, a familiar surrounding is so transformed as to become almost unrecognizable.

### THE SUBAK

312 The rugged, mountainous nature of the island, closely furrowed by deep ravines, makes irrigation extremely difficult. Water is led from the mountains to the various levels of cultivated land by an elaborate system of canals, dams, bamboo pipes, and even long tunnels cut through solid rock, to the dikes that permit the *sawa* to be flooded or drained at will. Solid matter is filtered off and pools are made for sand deposits to prevent the clogging of the ricefields.

474 312 It is obvious that small landowners could not carry out, alone, the tremendous task of attending to the work of irrigation. It became necessary for them to organize into *subaks*, agricultural co-operative societies, "water boards" that control the equitable distribution of water to their members, all those who take water from a common source. The objectives of the *subak* are to give the small agriculturist the assurance that he will not lack water, to police the dams effectively so that strangers will not divert the water supply, to settle disputes, and to attend to the communal rice festivals. In the village the society assumes full social, technical, and administrative authority in all matters concerning irrigation and agriculture.

Like the village and ward associations, the *subak* is presided over by elected headmen, the *kliang* and *penyarikan subak*, with their assistants (*pangliman*). The *subak* leaders open and preside over the meetings, see that the decisions and rules are carried out, impose fines and penalties, and act as treasurers of the organization. They keep written records of the names of the mem-

2: Covarrubias R-5 (1930-1933) 1938
OF7 Bali OF7



bers and of all transactions and proceedings. The offices of the *subak* leaders are unrewarded, except, as in the case of other societies, for certain privileges such as extra shares of water and a small percentage of the fines collected. Every man who owns ricefields is compelled to join the *subak* and to carry out orders. Members may be allowed to buy off their services, but they must be present when important repairs are made, even though they may pay others to do their share of the work.

Once a month, or oftener if necessary, a general meeting is held in the little temple of the *subak*, a small shrine dedicated to the agricultural deities, built out in the middle of the ricefields. Attendance is compulsory and an absentee who is not properly justified is fined. When the members have gathered, the headman reads the roll, communicates the improvements and repairs to be carried out, reports on the relations of the society with higher officials [1] and with other *subaks*, and accounts for money received in fines and fees as well as what has been spent in materials, offerings, and so forth. Important decisions are reached by majority vote. When all business is settled, the headman adjourns the meeting and an informal social gathering follows in which tobacco, *sirih*, and refreshments are served by appointed attendants. If the *subak* is a prosperous one, there may even be a banquet.

Like other Balinese associations, the spirit of the *subak* is essentially communal; all members abide by the same rules, each one being allotted work in relation to the amount of water he receives. Certain stipulations are made to prevent individuals from holding more land than would be convenient to the community. A man who has more land than he can work is compelled to share the produce with people appointed to help him.

## RICE CULTURE

Before any work is done in the ricefields, an expedition composed of the *kliang*, a priest (*pemangku*), and four or five *subak* mem-

[1] The various subaks of a district are under the control of an official, the sedahan, a sort of minister of agriculture, now under a Government salary.

2: Covarrubias R-5 (1930-1933) 1938
OF7 Bali OF7



423 621 631 Alongside the Balinese commune is the contrasting influence of mediæval princes who have tried, without success, to abolish the village organization and the religion that motivated it, to replace it by feudal rule with an official cult under their control. Passive disobedience at first, and Dutch supremacy later, left the princes in the position of impoverished nominal aristocrats, who, despite the fact that they represent the Government, are excluded from the administrative management of the villages. [474] Through their co-operative societies, the *bandjars* and *subaks*, the Balinese have recaptured some of their village autonomy. However, the communal system has suffered considerably in the feudal territories where the princes have held sway; the communal lands sometimes became part of the estate of the local prince, who gave grants of lands to his vassals in exchange for servitude, and gradually ownership of the land in these districts became more and more individualistic, developing a class of organized small landowners. Village ground cannot legally be disposed of, but sawas have been pawned when there was great need of ready cash. Land has never become a commodity, however, and today the agriculturist is protected to a certain extent [648] by the law forbidding the sale of agricultural lands to foreigners, perhaps one of the wisest laws passed by the Dutch Government.

511 556 Economic inequality is not as striking in Bali as elsewhere. Until recently almost everybody wore the same type of clothes, all went barefoot and lived in thatched houses. At first sight they all seemed happy and prosperous. The majority of the population has a roof, enough to eat, and some big silver dollars buried under the earthen floor of the sleeping-quarters. Yet there are some who are extremely poor while others are considered rich. There are people without lands or a house of their own, living a parasitic life of slavery, a remnant of feudalism, attached to the household of a master and eating whatever is given them. A rich family is one who has sawas, a house with a gate of carved stone, a large rice granary, an ornate family temple, and a well-built pavilion for guests. They may have some fine cloths put away

9:Geertz E-5 (1957-1958)1959 OF7 Bali OF7



there were too many such groups, that they made for conflict, for a decrease in valuable public activities, and led to a kind of individualism. "The seka got rich, but the bandjar got poor." Thus all the sixteen hamlets decided at once to institute the kliran system and to ban voluntary organizations for all important functions. And when the Dutch left in 1941 the ruling family further intensified its efforts to strengthen the status system which had also been weakened in the general move toward a less organic society, producing the present pattern of organization. Territorialism in Blaju is thus not a simple survival from the distant past, but the outcome of the interaction between traditional values and the quite untraditional events of the twentieth century.

In such a system integrative strains are likely to appear across caste lines, and despite all the bowing and scraping one sees in Blaju, Sudra resentment against Triwangsa domination is quite evident. When a small Sudra dadia of Sunguhu which traditionally has the right to patronize priests appointed from among its own members rather than Brahmana ones, attempted to institute this system in Blaju a few years ago, they were expelled from their hamlet under intense Triwangsa pressure on the basis of "injuring local custom and denigrating the upper castes." Despite heavy pressures from the central bureaucracy and some local sympathy for the rebels, the Blaju upper castes held firm and the Sunguhu ultimately capitulated. But, irrespective of such strains, Blaju is rather more tightly knit than most Balinese villages: all the 1500 families were members of a single national political party, and one of the few really effective consumer-producer cooperatives in Bali was located in Blaju, its effectiveness being mainly attributable to the fact that it, too, had 100 per cent membership.

## SOME THEORETICAL IMPLICATIONS

Of the many theoretical issues growing out of the analysis of Balinese village organization, among the most interesting are those centering around questions of typology. Typologizing has always been a central concern of social anthropology because both descriptive simplicity and comparative generalization rest on the possibility of summarizing social organizations in terms of constructs at once ethnographically circumstantial and formally distinctive. Whatever their shortcomings from more sophisticated theoretical perspectives, such types as "The Indian Village," "The Chinese State," or "The Nuer Kinship System" (to say nothing of "Peasant Society," or "Segmentary Social Organization," which are perhaps best seen as second order types of types) seem essential to comparative analysis of even the most rudimentary sort. But the Balinese case, in which this methodologically fundamental task of discriminating wood from trees seems unusually difficult of accomplishment, suggests that some of the assumptions underlying our usual typologizing procedures may be in need of revision. Particularly, and perhaps paradoxically, they suggest that clues to the typologically essential may as often lie in rare or unique phenomena as they do in common or typical ones; that essential form